

SHORTIA

NEWSLETTER OF THE

WESTERN CAROLINA BOTANICAL CLUB



Shortia galacifolia

Oconee Bells

Summer 2024

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MEMBER NEWS

Field Trip Cancellations: Occasionally, field trips must be canceled or changed either for weather conditions or other reasons such as road closings. Such changes are sent out by email to all members by 7 AM the day of the field trip. If you do not have email access, please call the leader, co-leader, or recorder (whose phone numbers are listed on the schedule) to be sure that the walk is going to go as planned. Indoor programs are canceled when Henderson County Schools are closed (see <http://www.hendersoncountypublicschoolsnc.org>) but NOT necessarily canceled because of the delayed opening.

For any change of address, email or telephone number, please send an email to wcbotanicalclub@gmail.com.

Our webpage is located at <http://wcbotanicalclub.org>



President's Message

Cindy Carpenter

The Green Season

Welcome to July! When I was working in the Pisgah National Forest some visitors this time of year would muse to me that they have not seen wildflowers blooming in the woods. I would assure them that they are out there, maybe not as showy and visible among all the leaves as they are in the open spring woods, but on closer look some are still there. Don't we in the Western Carolina Botanical Club know that! Our walks this time of year offer beauty to enjoy in flower, fruit, and fern, patterns to discern, and species to decipher. I hope many of you will join our Friday walks, and when you can't, explore and enjoy our diverse and lovely landscapes where and when you can.

Speaking of our walks, miles of thanks and appreciation go to outgoing Club Secretary Aleta Tisdale who also served as our Scheduler. Many thanks also extend to out-going Member-at-Large Charlie Brice. Our annual membership gathering is Friday, July 12 at Holmes Educational State Forest beginning at 11:30 when we will officially recognize new board members. It will be a delight to see many of you there. Please remember that board positions open every year, so if you are curious about serving please let me or another board member know.

On with the Green Season of Summer, and all its colors and curiosities!



What's in a Name – *Pogonia*

Penny Longhurst

We've had a lot of *Pogonia* reports this year, thanks to Alice and Charlie, Daudie and John, Jim, and Rebecca, our amazingly sharp-eyed Orchid spotters. *Pogonia* are a little tricky to characterize because, although they are all members of the *Orchidaceae* family, they belong to several different genera and look completely different from each other. Even more confusing, *Pogonia* may be either their botanical or common name. The word *Pogonia* is derived from the Greek meaning "bearded". Some *Pogonia* are obviously bearded, but others not so much.

Three *Cleistesiosis* (Rosebud Orchid) species grow in North Carolina. The only one that is found in the mountains, Small Spreading Pogonia (*Cleistesiosis bifaria*), can be seen in several locations in DuPont State Recreational Forest, where it blooms from mid-June to early July. Last year we were fortunate enough to find several of these lovely and uncommon plants on our Sky Valley field trip, and I've seen others near Fawn Lake. Surprisingly, I spotted a new plant all by myself on the Wilkie trail! Formerly members of the *Cleistes* genus (from the Greek for "closed" because the petals and lip are partly joined to form a tube), in 2009 they were moved into the new *Cleistesiosis* genus, which means "like *Cleistes*". LeGrand suggests that the common name for *C. bifaria* should be changed to "Appalachian Small Spreading Pogonia" to avoid confusion with the other members of the genus. *Bifaria* means "two ways" and may refer to the nectar guides on the flower lip. Although it's listed in our database and described by Radford and in Smith's book, Rosebud Orchid; Large Spreading Pogonia (*Cleistesiosis divaricata*), is now known to be found only in the coastal plain. Since those books were published, *C. bifaria* and *C. divaricata* have been split into separate species based on floral scent, morphology, and range. Characteristics of *C. bifaria* include a single long leaf located about halfway up the stem, a leaflike bract located below the flower, and three narrow spreading brown sepals. The single scentless pink flower has two lateral petals which cover the lower lip. The lip is purple veined with a central ridged yellow crest and a dark pink tip.



Developing plant showing leaf and bract



Cleistesiosis bifaria plant



Flower showing sepals & lip.
Photograph by Jim Poling

Two *Isotria* (Whorled Pogonia) species, Small Whorled Pogonia (*Isotria medeoloides*) and Whorled Pogonia (*Isotria verticillata*) grow in North Carolina. The genus name, *Isotria*, is derived from the Greek words *iso* and

tria meaning “equal” and “three”, referring to the three large sepals found on the plants. *Isotria* plants have a single whorl of 5 or 6 leaves that can sometimes be confused for young Indian Cucumber Root (*Medeola virginiana*) plants. However, the stems of *Isotria* species are purplish, stout, hollow, and smooth and the leaves tend to be wider and less pointed than those of *M. virginiana*. The specific name *Medeoloides* means “Medeola-like” and *verticillata* means “whorled”. *I. medeoloides* is very rare and has not been seen by the club. *Isotria verticillata* grows throughout most of the state and there are several plants at the Kellogg Center, although we are always too late to see them bloom. There is also a large colony in DuPont that blooms in April. The single flower is borne above a whorl of dark green leaves which tend to point up when the plant is blooming. The three long tapering sepals have brown-purple tips. The central sepal is erect, and the lateral sepals extend forward below the flower. Two green-yellow petals extend over the lip which is white with a central green crest and ruffled at the end.



Isotria verticillata plant



Flower showing lip. Photograph by Jim Poling



Leaves & developing fruit

Rose Pogonia; Snake Mouth Orchid (*Pogonia ophioglossoides*) is a special rare plant that we sometimes see at Ashmore Heritage Preserve. It's a bog plant, found more commonly in the coastal plain than in the Piedmont or mountains. The shocking pink of the flower is hard to miss. This plant is a distinctly bearded Pogonia and the specific name, *ophioglossoides*, is from the Greek, meaning “like a snakes tongue”, contributing to one of its common names. It is also derived from its single clasping stem leaf which resembles that of *Ophioglossum* species, the Adder's-tongue Ferns. Like *Cleistesiosis* Pogonias, *Pogonia ophioglossoides* have a single stem leaf and a leaflike bract near the flower. The single flower has three spreading pink petal-like sepals and two lateral petals. The large protruding lip is tipped with a fringed magenta beard.



Pogonia ophioglossoides plant



Flower & bract. Photograph by Jim Poling



Flower showing sepals & lip. Photograph by Jim Poling

Three Birds Orchid; Nodding Pogonia (*Triphora trianthophoros*) is another special rare plant. Although we don't see any on our field trips, we sometimes make a detour to see the plants when Jim Poling tells us they are blooming. He follows the thermoperiodicity criteria described by Jim Fowler which were: "There must be at least a 5-degree (F) drop in morning low temperatures over 48 hours. Then, 48 hours later, there will be a mass blooming — all the flowers at a certain stage of "readiness" will all open together. It's that simple! Over the next few weeks to a month, there may be several of these mass bloomings, so if you miss the first one, there's usually another." In the past, this has happened in late July or August, but this year — who knows!?



Triphora trianthophoros plants



Three nodding flowers on each stem with clasping leaves



Flower showing sepals & lip

The genus name, *Triphora*, as well as the specific name, *trianthophoros*, come from the Greek, meaning "to bear three" referring to the three flowers usually borne on each stem. The flower is supposed to resemble three

birds in flight, hence its common name. *Triphora trianthophoros* are small delicate plants that often grow in large colonies. Their multiple small leaves clasp the stems. Each drooping flower may be white or pink-tinged in color and has three large petal-like sepals and two lateral petals. The lip has three green-yellow lateral ridges and a ruffled edge. You need sharp eyes to find these plants, but when you do it's worth it.

Acknowledgements: Many thanks to Jim Poling for permission to use his photographs.

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Four Yellow Flowers at Parkway Overlooks

Lucy Prim

For this Shortia I decided to write about four non-native yellow flowers we find at Parkway Overlooks, growing in the mowed grass beside the pavement. It's tempting to not pay attention to these little yellow flowers. They aren't native, but from Europe and Eurasia. If we found lots of them in our own flower garden I dare say we'd not be delighted. In some states, some are officially termed "noxious weeds". They all look like dandelions if you don't look a little closer at the leaves. And although the temptation is to ignore them and move off into the more interesting woods, they are on our plant lists, and it would actually be easier to learn their names rather than debate and deliberate each time not quite knowing what are these little non-native yellow flowers dotting the grass beside the road with their funny English names—Cat's Ear, Mouse Ear, King Devil and Dandelion.

I have thought up some memory aids to help us keep them straight, though when trying out my memory aid in the field a few days ago it didn't work very well and left me puzzled. I need to practice more!

Two of the yellow flowers are Hieraciums according to ITIS, although Weakley has them named differently. These two do not have lobed leaves. Noting this, immediately narrows the four possibilities to two. Mouse Ear has a smaller, grayish green leaf that bulges out toward the tip, and there are often multiple stems coming up from the leaves with one to several yellow flowers on each. It is stoloniferous, and if the grass isn't too long, we may see a low growing mat of their gray green leaves with their whitish midveins. I can picture a family of mice, using these downy leaves for pillows.

King Devil is the other Hieracium. If you don't like this plant, it's easy to think of a good memory aid. Each stem has lots of flowers on it and you can picture Milton's legions tumbling down from their great height in their great numbers to a great unsavory depth, giving us a nudge to remember the Botanical name—*Hieracium caespitosum*.

As for Cat's Ear, this plant's hairy leaf often, but not always, has gentle lobes, like a cat's paw with rounded sheathed toes. I don't know why the plant isn't called "Cat's Tongue" because it actually does feel like a cat's tongue, a bit sandpapery. Even "Cat's Paw" would make more sense. I suppose the cat being referred to is a Tom with battle-torn ears. The multiple stems rise up from the base, often branching once or twice with a bright yellow flower at the tip. The botanical name has the word "cat" in it—*Hypochaeris radicata*, which can help us remember.

As for the last of the four, it is Dandelion! It has a very distinctive leaf, with the lobes pointing back toward the base of the leaf, and there is only one flower on each stem, as a Dandy would surely like it. A Dandy wouldn't like competition—he wants to be the only big yellow flower on the stem. The lobes point backwards and this can make us think of the letter "X" which can nudge our memory to think of the botanical name "*Taraxacum officiale*."

There are other yellow flowers that grow in these sorts of places, but for now, I think to learn these four would be very helpful, at least for me. And having thought about them for a while, they don't seem so noxious and annoying as they did before I started this project. A little more familiarity somewhat lessened contempt!

Four Yellow Flowers at Parkway Overlooks

Hieracium

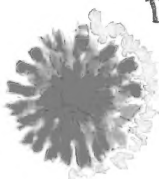
pilosella
Mouse-ear



caespitosa
King-devil



Taraxacum
officinale
Dandelion



Hypochaeris
radicata
Cat's Ear



Missing Plants - False Rue Anemone (*Enemion biternatum*)

Penny Longhurst

On my recent waterfalling visit to Arkansas this April I came across many plants that I thought were Wood Anemone (*Anemone quinquefolia*), snapped some quick pictures, and continued racing along the trails after my husband. However, later looking over my photographs I realized that although the single flower per stem looked like *Anemone quinquefolia*, the leaves looked more like Rue Anemone (*Thalictrum thalictroides*). The plant turned out to be something I'd never seen or heard of before, False Rue Anemone (*Enemion biternatum*).



Apparently, I was not the only person who has been fooled by this attractive but sneaky little plant! Almost all references to *Enemion biternatum* state that it is often confused with those two plants, particularly the *Thalictrum*. Even Rafinesque, who discovered the plant near Lexington, Kentucky and named it in 1820, wrote “*This genus has the greatest relationships with G. anemone and thalictrum, particularly with the latter*”.

Enemion biternatum is listed in our database but the club has never reported seeing it. It is included in Dick Smith's book, which is probably why it's in the database, but he says it barely enters our region and he has no picture. According to Weakley, it is rare in the Appalachian Mountains from Alabama to Virginia, but common in the Arkansas highlands, where I saw it, and on the Tennessee and Kentucky plateau, west of the mountains. According to photographs posted on NamethatPlant.net it may also be seen at Stevens Creek Heritage Preserve, SC, located near Augusta, Georgia. In contrast, we are very familiar with *Anemone quinquefolia* and *Thalictrum thalictroides*, which we commonly see on our early spring field trips.

Compared to *Thalictrum thalictroides*, the leaves of *Enemion biternatum* are more deeply lobed and may grow up the stem. *E. biternatum* plants usually have a solitary flower on each stem with 5 white petal-like sepals. *T. thalictroides* plants have multi-flowered umbels, with as many as 5-20 white or pink sepals. In addition, unlike *T. thalictroides* plants where the fruit is a 1-seeded achene, *E. biternatum* plants produce follicles which split to release multiple seeds. However, that's not something we usually notice.

Anemone quinquefolia leaves, of course, are quite different from those of *Thalictrum thalictroides* and *Enemion biternatum*, which should have been my first clue that it was something else when seeing the plant. However, like *E. biternatum*, *A. quinquefolia* plants have solitary flowers with 5 petal-like sepals.



Wood Anemone (*Anemone quinquefolia*)



Rue Anemone (*Thalictrum thalictroides*)



False Rue Anemone (*Enemion biternatum*) Leaves & Fruit



False Rue Anemone (*Enemion biternatum*) Flower

At first glance, especially if it's a quick one, False Rue Anemone lives up to its name. However, if you take time to examine the plant carefully it's quite easy to identify. Next time I'm outside this region and see a plant that looks like Wood Anemone or Rue Anemone I'll try to be much more careful before rushing to label it.

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The mission of the Club is to identify and study native plants and their habitats and to advocate the protection of biodiversity in our natural world. Membership is open to all. Individual/family memberships are \$15/year. Lifetime membership is \$150. Send completed membership form and dues to Western Carolina Botanical Club, 232 Frazier Road, Brevard, NC 28712